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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,207	09/05/2001	Martin Philip Usher	11696.0055	3011

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Stuart T F Huang  
Stephoe & Johnson  
1330 Connecticut Avenue NW  
Washington, DC 20036

EXAMINER

ADDY, ANTHONY S

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/830,207

Applicant(s)

USHER ET AL.

Examiner

Anthony S Addy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                                 |                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                            | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>04/24/2001</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Abstract***

1. The abstract of the disclosure is objected to because it uses multiple paragraphs and has exceeded 150 words in length. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

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Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1,2,5-7 and 9-12 are rejected under 35 U.S.C. 102(e) as being anticipated by **Horrer, U.S. Patent Number 6,321,084 (hereinafter Horrер)**.

Regarding claims 1, 2 and 5, Horrер discloses a cellular radio system and apparatus for providing telephone connection between one or more cellular radio telephones and a fixed cellular radio switching system (see col. 1, lines 9-18 and Fig. 1), comprising a moveable cellular system (see col. 5, lines 33-44), a fixed cellular radio switching system (see col. 6, lines 14-18 and Fig. 1; where a public switched telecommunications network (PSTN) 10 is shown), and a tracking radio link providing radio connection between the moveable cellular switching system and the fixed cellular switching system (see col. 6, lines 10-13 and Fig. 1; where a satellite 8 for providing radio signal connection is shown), the moveable cellular system comprising a moveable telephone switching system connected to one or more base transceiver stations for providing radio connection with the cellular radio telephones (see col. 6, lines 4-13 and Fig. 1), and having means for initiating a control call over the tracking radio link to the fixed cellular radio switching system in response to the detection of the presence of a cellular radio telephone in the area of coverage of the moveable cellular switching system (see col. 1, lines 37-40, col. 6, lines 4-13, col. 6, lines 51-58), and the fixed cellular radio switching system having registration means responsive to such control calls to indicate to other switching systems that calls to a cellular radio telephone currently served by the moveable switching system should be initially directed to the

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fixed cellular radio switching system (see col. 6, lines 38-65), the fixed cellular radio switching system also having call diversion means responsive to such control calls to allow incoming calls directed to the cellular radio telephone to be diverted to the moveable cellular switching system by way of the tracking radio link (see col. 6, lines 38-58).

Regarding claim 6, Horrер discloses all the limitations of claim 1. In addition, Horrер teaches an apparatus, wherein the movable system has means for generating an association between an identity code of a destination node of the tracking radio link and an identity code of a cellular radio telephone (see col. 4, lines 44-56, col. 6, lines 44-52), and means for storing the said associated identities in stores associated with the moveable cellular switching system (see col. 6, lines 44-47 and col. 7, lines 2-3), thereby allowing both cellular radio switching systems to translate between the cellular radio identity and the node identity (see col. 4, lines 44-56, col. 6, lines 14-52).

Regarding claim 7, Horrер discloses all the limitations of claim 6. In addition, Horrер teaches an apparatus, the apparatus being arranged such that calls directed to a cellular telephone currently co-operating with the moveable switching cellular system are diverted by the fixed cellular switching system to a node of the tracking radio system having the identity associated with the cellular radio identity (see col. 6, lines 39-58 and col. 7, lines 1-8), the node having means for connecting the call to the moveable cellular switching system and the moveable switching system having means for retrieving the cellular network identity associated with the node and routing the call to the cellular telephone having that identity (see col. 6, lines 39-58).

Regarding claim 9, Horrer discloses a method for providing network location functions in a fixed cellular radio switching system for one or more cellular radio telephones when said telephones are in communication with a moveable cellular radio switching system connected to the fixed cellular switching system by a tracking radio link (see col. 1, lines 9-33, col. 6, lines 1-13 and Fig. 1; where a satellite 8 for exchanging radio signals between private branch exchange 4 and public switched telecommunications network (PSTN) 10 is shown), wherein the moveable cellular radio switching system initiates a call over the tracking radio link to the fixed cellular radio switching system in response to the detection of the presence of a cellular radio telephone in the area of coverage of the moveable switching system (see col. 7, lines 12-21, col. 2, lines 30-51 and col. 6, lines 1-13), and the moveable switching system and the fixed cellular radio switching system co-operate to cause calls directed to the cellular radio telephone to be transmitted to the moveable cellular switching system by way of the tracking radio link (see col. 6, lines 4-58 and col. 7, lines 1-28).

Regarding claim 10, Horrer discloses all the limitations of claim 9. In addition, Horrer teaches a method, wherein the movable system generates an association between an identity associated with a node of the tracking radio link and the cellular network identity (see col. 4, lines 44-56, col. 6, lines 44-52), and the said associated identities are stored by the fixed and moveable cellular switching systems (see col. 6, lines 44-47 and col. 7, lines 2-3), thereby allowing translation between the cellular and tracking radio link identities by both cellular radio switching systems (see col. 4, lines 44-56, col. 6, lines 14-52).

Regarding claim 11, Horrер discloses a method for routing calls made to a cellular radio telephone currently connected to a moveable cellular radio switching system wherein a fixed cellular radio switching system indicates that the cellular radio telephone is currently connected thereto such that calls are initially directed to the fixed cellular switching system (see col. 2, lines 30-51, col. 6, lines 1-13, col. 6, lines 24-58, col. 7, lines 1-28 and Fig. 2), and wherein such calls, when received by the fixed cellular radio system, are diverted by the fixed cellular radio system to a node in a tracking radio system (see col. 6, lines 39-58), the node in the tracking radio system being associated with the moveable cellular radio telephone switching system (see col. 6, lines 39-58 and Fig. 1), the node then routing the call to the cellular radio telephone by means of the moveable cellular radio switching system (see col. 6, lines 39-58 and col. 7, lines 1-8).

Regarding claim 12, Horrер discloses all the limitations of claim 11. In addition, Horrер teaches a method, wherein calls directed to a cellular telephone currently associated with the moveable switching cellular system are diverted to a node of the tracking system having an identity associated with the cellular network identity (see col. 6, lines 14-23 and lines 38-44), the node connects the call to the moveable cellular switching system and the moveable switching system retrieves the cellular network identity associated with the node and routes the call to the cellular telephone having that identity (see col. 6, lines 44-58).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Horrer, U.S. Patent Number 6,321,084 (hereinafter Horrер)** as applied to claim 1 above, and further in view of **Schmid et al., U.S. Patent Number 5,950,129 (hereinafter Schmid)**.

Regarding claim 3, Horrер teaches all the limitations of claim 1. Horrер, however, fails to explicitly teach an apparatus, wherein the moveable system has terminals with provision for connection of a cellular handset, and means for transferring audio signals from the cellular handset to an audio output of the terminals.

Schmid, however, teaches a system and method for providing two-way in-flight radio telecommunications on board an aircraft, wherein an airborne subscriber connects his mobile telephone to the telephone terminal at his seat by using the first co-ax cable and initiates a call to a ground based party (see col. 7, lines 29-33). According to Schmid, the RF signal produced by the subscriber's mobile telephone proceeds through the first co-ax cable to the telephone terminal (see col. 7, lines 33-35).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify the system and apparatus of Horrер with Schmid to include an apparatus, wherein the moveable system has terminals with provision for connection of a cellular handset, and means for transferring audio signals from the cellular handset to an audio output of the terminals to provide an airborne subscriber with the ability to originate and receive telephone calls in the aircraft at the subscriber's seat and by



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utilizing the airborne subscriber's own mobile telephone without interfering with aircraft navigation or communication systems as taught by Schmid (see col. 2, lines 30-40).

Regarding claim 4, the combination of Horrер and Schmid teaches all the limitations of claim 3. Horrер, however, fails to explicitly teach an apparatus, wherein the terminals have means for collecting a ringing tone from the handset and generating a visual or audible alert in response to such ringing tones.

Schmid, however, teaches a system and method for providing two-way in-flight radio telecommunications on board an aircraft, wherein the terminals have means for generating an alerting signal which may cause a light to flash or a ringer to ring at the seat terminal (see col. 6, lines 54-57).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify the system and apparatus of Horrер with Schmid to include an apparatus, wherein the terminals have means for collecting a ringing tone from the handset and generating a visual or audible alert in response to such ringing tones to alert an airborne mobile subscriber to receive calls in the aircraft at the subscriber's seat and by utilizing the airborne subscriber's own mobile telephone without interfering with aircraft navigation or communication systems.

6. Claims 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Horrер, U.S. Patent Number 6,321,084 (hereinafter Horrер)** as applied to claims 7 and 11 above, and further in view of **Chambers, U.K. Patent Application 2 320 992 (hereinafter Chambers)**.

Regarding claims 8 and 13, Horrer teaches all the limitations of claims 7 and 11. Horrer, however, does not specifically teach an apparatus and method, wherein the tracking radio link is a satellite link having means for changing the satellite through which it is routed, and wherein a call in progress can be maintained when the satellite through which the tracking link is routed is changed.

Chambers, however, teaches a system of satellites capable of changing a radio link to another of the satellites in response to a vehicle moving from an area covered by one of the satellites to an area covered by another of the satellites (see page 9, 3<sup>rd</sup> paragraph and Fig. 2). One of ordinary skill in the art further recognizes that is well known in the art to maintain call connectivity and switch between satellites.

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify the system and apparatus of Horrer with Chambers to include an apparatus and method, wherein the tracking radio link is a satellite link having means for changing the satellite through which it is routed, and wherein a call in progress can be maintained when the satellite through which the tracking link is routed is changed to prevent call drops and allow a continuous communication between a fixed station and a moving object.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Borel, U.S. Publication Number 2002/0155833 discloses method for selecting a ground station within an aeronautical telecommunications network.

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Trachtman et al., U.S. Publication Number 2003/008651 discloses system and method for providing broadcast signals to aircraft.

Yee et al., U.S. Patent Number 6,147,980 discloses avionics satellite based data message routing and delivery.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony S Addy whose telephone number is 703-305-8487. The examiner can normally be reached on Mon-Thur 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel L Moise can be reached on 703-306-0003. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Anthony S. Addy  
March 15, 2005

